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The Global Fund

To Fight AIDS, Tuberculosis and Malaria

MONITORING AND EVALUATION TOOLKIT

HIV/AIDS, TUBERCULOSIS AND MALARIA

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Why this kit?

With the global momentum to scale up the response to the three main infectious diseases, HIV/AIDS, tuberculosis (TB) and malaria, public health practitioners need to provide various levels of accountability for their activities or policies to a variety of constituencies. It is becoming increasingly important for countries to be able to report accurate, timely and comparable data to national authorities and donors in order to secure continued funding for expanding health programmes and, most importantly, to utilize this information locally to strengthen evolving programmes. This toolkit aims to ensure that countries are able to measure, report, and use good quality health and health-related information in a manner that meets both donor and country needs. It is particularly important for national programme implementers and managers to have access to the quality information they need to make adjustments and programmatic and technical decisions.

Existing M&E guidelines and materials have been developed through the collaborative work of many partnership constituents such as UNAIDS, WHO, UNICEF, bilateral agencies and NGOs and global disease partnerships such as HIV/AIDS 3 by 5, StopTB and Roll Back Malaria. Developed with the support of international funders and M&E experts, the purpose of this toolkit is to gather a selection of standard indicators and best practice in M&E, by applying a common M&E framework for the three diseases and providing users with references to key materials and resources. Although labeled as a “monitoring and evaluation” toolkit, this document will focus mainly on the monitoring component and high level reporting of a restricted set of measures of progress. Indicators for “enabling environments” are presented in an attempt to address each disease within a broader context. However, most indicators are focused on the health sector.

This toolkit aims to assist countries in the following:

- Formulation of a participatory national M&E strategy by providing an overview of key issues to consider;
- Design of sustainable M&E systems that can be used to report on results and impact during the implementation stages of scaled up programmes;
- Implementation and quality control of M&E systems and reporting of progress; and
- Evaluation, review and improvement of M&E systems over time as the scale up of interventions to reduce morbidity and mortality associated with HIV/AIDS, TB and malaria occurs.

The toolkit is the outcome of a collaborative process of international partners including WHO, UNAIDS, The Global Fund to Fight AIDS, Tuberculosis and Malaria, USAID, CDC, HHS, UNICEF, and the World Bank. This involved working groups to coordinate indicators across the three diseases, regular updates as evaluation and monitoring measurements and programs evolve, and review by the relevant technical departments for each disease. Harmonization and wider partner buy-in is seen as important for coordination of reporting from international to national and local levels, particularly as resources for these activities are frequently limited.

Who is it for?

This information package aims to provide those working at the country level on M&E systems linked to expanded HIV/AIDS, TB and/or malaria programmes with rapid access to key resources and standard guidelines. Users include national disease programme managers and project leaders, donor agencies, technical and implementing agencies and NGOs to better harmonise information demands. While the guide is written with this specific audience in mind, it does not intend to exclude the wider cadre of individuals and groups working in these disease areas including among others, professionals working in education, on gender issues, and legal reform, for example.

What are its contents?

The toolkit presents a framework in which to present a selection of standard indicators, for the three diseases, and refers to a range of M&E guidelines and tools including additional indicators on specific programme areas. In addition, this toolkit addresses frequently asked questions in relation to implementing M&E for HIV/AIDS, TB and malaria programmes.

The indicators presented have been developed for the national level, although many can be used at various levels. Country users should design or modify their (health) information collection system bearing in mind the different information that needs to be collected for use at different levels in order to construct the more comprehensive, “big picture” that these indicators allow. Additionally, new technologies and developments will result in the need to periodically revise and update the illustrative indicators presented here. This is the first time indicators from these diseases have been brought together into one manual. It is therefore a work in progress and modifications will be periodically

included to ensure that users' needs are met. We will identify areas that require refinement in future editions as necessary. This document is available electronically at <http://www.theglobalfund.org/en/apply/call/>.

Note: The toolkit does not aim to provide a comprehensive overview of all core and additional indicators developed in each of the three disease areas. Rather, it aims to provide users with a set of the most common indicators used for specific activity areas. For a complete listing of all existing indicators, readers are referred to the guidelines section for each HIV/AIDS, TB, and malaria. These sections list all available M&E guides including program indicators.

How were indicators selected?

The indicators that are found here were selected in consultation with technical M&E experts in each of the three disease areas as well as with staff at the Global Fund. Consultations were held with staff from the HIV/AIDS, TB, and malaria departments at WHO. Additionally, inputs from other members of the UN, particularly UNAIDS and UNICEF as well as the World Bank, USAID, and the CDC were sought in order to ensure that the recommended indicators were in-line with those used across organizations. **It is important to note that no new indicators have been developed for the purposes of this toolkit, rather, existing indicators, or indicators that will soon become widely available are presented.** The only exception to this are several cross-cutting indicators that are presented under the heading "Supportive Environment", these are specific to the Global Fund and are presented in a separate table, these indicators can be used across all three diseases. Therefore, this toolkit builds upon already existing and accepted indicators used in a wide range of programs.

How do you use this toolkit?

This toolkit is meant to provide a selection of standard indicators in the areas of HIV/AIDS, TB, and malaria. General M&E concepts are outlined in the first part of the document. Disease-specific sections provide technical information regarding each indicator. Annexes provide an overview of indicator definitions, measurement, and reporting.

The toolkit is not meant to contain a comprehensive list of indicators (for example public/private mix DOTS is not covered but may be an approach implemented in various settings). It is limited to a selection of standard indicators that are likely to be part of routine data collection in disease programmes, and useful for international reporting for example to the GFATM among other organizations. As noted above, this toolkit is a work in progress, and modifications will be made periodically to assure that user needs are met.

To make specific suggestions regarding improvements to the toolkit, users are encouraged to write to: toolkit@who.int

Basic elements of M&E

Establishing and Strengthening an M&E program

While significant progress has been made in country M&E, much disease-specific M&E has been done in a vertical, isolated fashion that is often not linked or triangulated with other sources. Extensive evaluation of a donor-sponsored project may have been carried out in an important area of programming, without the results ever being shared in the field. In short, the utility of much of the disease-related measurement in a country may be lost because there is often no coherent M&E system that can capture information on multiple diseases for users at different levels. In addition, many countries rely on surveys such as Demographic Health Surveys (DHS) or AIDS Indicator Surveys (AIS), Behavioural Surveillance Surveys (BSS), and Multiple Indicator Cluster Surveys (MICS) that are funded through external donors to gather information on the impact of their own and donor-supported programmes. This produces data that may be valuable in the broader M&E context, but may not be well integrated with traditional sources of health information, such as national health information and surveillance systems.

A common, comprehensive and coherent M&E system has several advantages. It contributes to more efficient use of data and resources by ensuring, for example, that indicators and sampling methodologies are comparable over time and by reducing duplication of effort. Where resources are scarce, this is an important asset. Data generated by a comprehensive M&E system ought to serve the needs of many constituents, including programme or project managers, researchers and donors, eliminating the need for each to repeat baseline surveys or evaluation studies when they might easily use existing data.

The three “ones”:

On 25 April 2004, the representatives of major donor organizations and of many developing countries adopted three principles as the overarching framework to better coordinate the scale-up of National AIDS Programmes and related responses to the HIV/AIDS epidemic. The “Three Ones Principles” are:

- *One* agreed HIV/AIDS *action framework* that provides the basis for coordinating the work of all partners;
- *One* national AIDS *coordinating authority*, with a broad based multi-sector mandate; and
- *One* agreed upon country-level *monitoring and evaluation system*.

The importance of creating, implementing and strengthening a single, unified and coherent M&E system at the country level cannot be overemphasized. A strong unified M&E system ensures that: 1) relevant, timely and accurate data are made available to programme leaders and managers at each level of the programme and health care system; 2) selected quality data can be reported to national programme leaders; and 3) the national programme is able to meet donor and international reporting requirements under a unified global effort to contain the HIV/AIDS pandemic.

From the point of view of the national programme, a coherent M&E system helps ensure that donor-funded M&E efforts best contribute to national needs. These needs go beyond disease-focused M&E, rather than simply serving the reporting needs of specific international donors or organizations. A further advantage is that it encourages coordination and communication between different groups involved in the national response to HIV/AIDS, TB, and malaria. Agreement among the major donor, technical and implementing agencies on the basic core M&E framework will reduce the burden of requests for data from different agencies. Shared planning, execution, analysis or dissemination of data collection can reduce overlap in programming and increase cooperation between different groups, many of whom may work more efficiently together than in isolation.

Countries have different M&E needs, dictated in part by the state of their HIV, TB, and/or malaria disease burdens. Yet successful M&E systems will share common elements, as demonstrated by successful programmes in several countries. A list of some of these elements is given in Box 1.

General concepts in M&E

There are varying frameworks applied to the selection of M&E indicators. Indicators are used at different levels to measure what goes into a programme or project and what comes out of it. Over the past few years, one largely agreed upon framework has emerged, the input-process-output-outcome-impact framework illustrated below. For a programme or project to achieve its goals, **inputs** such as money and staff time must result in **outputs** such as stocks and delivery systems for drugs and other essential commodities, new or improved services, trained staff, information materials, etc. These outputs are often the result of specific processes, such as training sessions for staff, that should be included as key activities aimed at achieving the outputs. If these outputs are well designed and reach the populations for which they were intended, the programme or project is likely to have positive short-term **effects** or **outcomes**, for example increased condom use with casual partners, increased use of insecticide-treated nets (ITNs), adherence to TB drugs, or later age at first sex among young people. These positive short-term outcomes should lead to changes in the longer-term **impact** of programmes, measured in fewer new cases of HIV, TB, or malaria. In the case of HIV, a desired impact among those infected includes quality of life and life expectancy. For additional information on M&E frameworks, readers may be interested in visiting the following UNDP and MEASURE Evaluation sites:

<http://cfapp1.undp.org/undpweb/eo/evalnet/docstore3/yellowbook/>

<http://www.cpc.unc.edu/measure/publications/evalman/>

Measuring impact requires extensive investment in evaluation, and it is often difficult to ascertain the extent to which individual programmes, or individual programme components, contribute to overall reduction in cases and increased survival. In order to establish a cause-effect relationship for a given intervention, studies with experimental or quasi-experimental designs may be necessary to demonstrate the impact. Outputs or outcome indicators however, can also be used to a certain degree to identify such relationships and can give a general indication of programmes progress according to agreed upon goals and targets.

Therefore, *focus is given here to output and outcome indicators*, which are often more easily collected than impact indicators and used in the short to medium term for programme strengthening and reporting. **It should be noted that some of the outcome indicators presented here, are in fact traditionally considered impact indicators.** Likewise, some indicators that are traditionally considered outputs have been moved to outcomes. For example, knowledge is often considered as an output, and here it is listed as a programme outcome. These changes relate to the life cycle of programmes where it was felt that existing indicators could be placed in different sections of the M&E framework

Box 1: Features of a good M&E system.

M&E UNIT	<ul style="list-style-type: none"> • An established M&E unit within the Ministry of Health with designated technical and data management staff. This unit should, among other things, coordinate M&E efforts across the three disease areas, irregardless of where individual disease-specific M&E is housed. • A budget for M&E that is between 5 and 10 percent of the combined national HIV/AIDS, TB, and malaria budgets from all sources. On average, 7% should be used as the reference. • A significant national contribution to the national M&E budget (not total reliance on external funding sources) • A formalised (M&E) link, particularly with appropriate line ministries, NGOs and donors, and national research institutions aimed at enhancing operations research efforts • A multisectoral working group to provide input and achieve consensus on indicator selection and various aspects of M&E design and implementation • Epidemiological expertise in the M&E unit or affiliated with the unit • Behavioural/social science expertise in the M&E unit or affiliated with the unit • Data processing and statistical expertise in the M&E unit or affiliated with the unit • Data dissemination expertise in the M&E unit or affiliated with the unit • Expertise in resource tracking, including both financial and commodity resources
CLEAR GOALS	<ul style="list-style-type: none"> • Well-defined national programme or project plans with clear goals, targets and operational plans. National M&E plans should be revised every 3-5 years, and M&E operational plans yearly. • Regular reviews/evaluations of the progress of the implementation of the national programme or project plans • Guidelines and guidance to districts and regions or provinces for M&E • Guidelines for linking M&E to other sectors such as education, labor, and military. • Coordination of national and donor M&E needs
INDICATORS	<ul style="list-style-type: none"> • A set of priority indicators and additional indicators at different levels of M&E • Indicators that are comparable over time • A number of key indicators that are comparable with other countries
DATA COLLECTION & ANALYSIS	<ul style="list-style-type: none"> • An overall national level data collection and analysis plan, including data quality assurance • A plan to collect data and periodically analyse indicators and associated data sets at different jurisdictional levels of M&E (including geographical) • Second Generation Surveillance, where behavioural data are linked to HIV/STI surveillance data
DATA DISSEMINATION	<ul style="list-style-type: none"> • An overall national level data dissemination plan • A well-disseminated, informative annual report of the M&E unit • Annual meetings to disseminate and discuss M&E and research findings with policy makers, planners and implementers • A clearinghouse for generation and dissemination of findings • A centralised database or library of all HIV/AIDS, TB, and malaria-related data collection, including ongoing research • Coordination of national and donor M&E dissemination needs

in order to detect changes in short periods of time. Indicators should be reported at the highest level possible as the programme develops over time. For example, output and outcome indicators presented here often relate to coverage, which can be meaningfully measured after 2 years in a programme's life. As a programme or intervention matures, users may consider evaluating impact, using information that has been collected through the programme's life and/or by undertaking special evaluation studies. As impact evaluation is not the focus of this document, the undertaking of such studies is not discussed here.

Much of the information contained in this toolkit is centred on the collection of quantitative data, it is important to emphasise however, the value and use of qualitative data in complementing, validating and providing a richer understanding of quantitative findings. Although qualitative approaches are not intended to be generalised to broader populations, such data does put quantitative data into context and allows for a more expansive interpretation of quantitative indicators. Qualitative data is also useful in addressing contextual responses to behaviour change, information that can prove valuable in designing more effective communication campaigns, giving voice to the poor and vulnerable populations and providing better services to target groups. Various methodologies are used in the collection of qualitative data including, among others, patient satisfaction surveys, desk reviews, patient/staff observation, mapping exercises, key

informant interviews, focus groups, participatory rural appraisals, and rapid ethnographic studies. For more information on these methodologies, refer to:

<http://www.fhi.org/en/HIVAIDS/Publications/Archive/evalchap/index.htm>

Ideally, a mixed qualitative and quantitative approach should be applied when collecting and analyzing information. The mixed methodological approach will contribute to a more substantial understanding of programme progress, ensure triangulation of data sources and reduce biases in the data.

Table 1, below, presents a generalised M&E framework for AIDS, TB and malaria. General examples of the areas measured at each level, key questions to answer, and indicators are provided. The aim of Table 1 is to familiarize users with this framework in order to facilitate the use of this toolkit. This is particularly relevant for users familiar with other interpretations of the different levels. For example, the Global Fund to Fight AIDS, TB and Malaria (GFATM) generally defines process as a mixture of inputs and outputs, and coverage as a mixture of outputs and outcomes. Depending on the level of programme development, there may be some overlap in indicators to measure inputs, processes and outputs. For example, where trained personnel are available to the programme, they represent an input for the programme. However, where human resources are lacking, trained personnel may be an output for the programme. Please *note* that not all of the indicator examples presented here are available in the annexes.

A note on target populations and denominators: In many cases, it may be difficult to determine the denominator, or population, to use when assessing, for example, coverage. We have therefore focused on numerators, or the subset of the population that is affected or benefits from interventions. In this toolkit, though, denominators should also be included where possible (if percentages are given, numerators should also always be reported to allow assessment of coverage). The publications *Estimating the Size of Populations at Risk for HIV* (UNAIDS/IMPACT/FHI, 2002) and *Guidelines for sampling orphans and other vulnerable children* (UNICEF, 2003) may help readers in addressing the challenges faced in determining denominators when working with hidden populations or low and concentrated epidemics.

In this toolkit, the term target population refers to the group of people who benefit from an intervention. The target population can be the total population or a smaller group such as young people. In designing interventions, efforts should be made to clearly define the target population. Definition of these is usually based on knowing whom diseases affect most, directly and indirectly. For example, the definition of a target population for HIV/AIDS interventions is often based on the epidemic state. In generalized epidemics where HIV prevalence is consistently over 1% in pregnant women, the target population could very well be the general population. However, in concentrated and low-level epidemics where HIV prevalence is concentrated within groups with specific risk behaviors, the target group may be defined as a sub-group of the general population that shares these same behaviors.

Table 1: The M&E framework, with example areas, key questions, and indicators

Level	Area	Key questions	Indicator example
INPUT (strategies, policies, guidelines, financing)	<ul style="list-style-type: none"> Policy Disbursement Infrastructure Coordination 	<ul style="list-style-type: none"> National strategic plans for each disease and related areas (i.e OVCs), including M&E and operations research plans exist Policy and guidelines exist Coordination is established Infrastructure and equipment available 	<ul style="list-style-type: none"> Policy and guidelines in place at national level Distribution node selected Sentinel site selected Providers selected Coordination mechanism in place for technical and operational issues
PROCESS (human resources, training, commodities)	Human resources	Human resources for service delivery and supervision are recruited, adequately motivated, trained and deployed	Number of people trained according to national standards for an intervention
	Drugs, basic needs, and commodities	<ul style="list-style-type: none"> Drugs are consistently available to consumers at the right time and place Basic needs (food, clothes, etc.) are consistently available to vulnerable populations at the right time and place Standard treatment guidelines and utilization manuals have been developed and produced 	<ul style="list-style-type: none"> % of drug distribution nodes reporting on stock status (repletion, shortage, consumption, quality, losses) on a monthly basis Number of activities organized which address basic needs of vulnerable populations Treatment guidelines and utilization manuals developed and available at service sites
OUTPUTS (services, numbers reached, coverage)	Service delivery, technologies	Intervention is accessible in a large number or majority of districts or other administrative unit	<ul style="list-style-type: none"> Number or % of districts or other administrative unit with at least one drug distribution center Number or % of districts or other administrative unit with the required number of providers of the intervention % of drug distribution nodes/facilities reporting no drug shortage % of selected providers equipped for the intervention (laboratories, nursing, psychosocial support, others)
	Knowledge, skills and practice	<ul style="list-style-type: none"> Target population knows about the benefit of the intervention Target population has improved knowledge and attitudes to diseases 	Number or % of districts or other administrative unit with designated sentinel/ provider operating according to guidelines for the intervention
OUTCOMES (changed behaviours, coverage)	People on treatment, people benefiting from intervention	A majority of target population is covered by the intervention	Number or % of target population covered by intervention
	Changed behaviour	Increased number or proportion of target population adopting behaviours which reduce their vulnerability to infection, morbidity, and/or mortality	Number or % of target population with desired health seeking behaviour (risk reduction, health care seeking)
IMPACT (biology and quality of life)	Morbidity, mortality, socio-economic well-being	Majority of target population is in better health and well-being as a result of the intervention	<ul style="list-style-type: none"> Number of target population showing clinical (and measurable) signs of recovery after 6, 12 months % of people showing clinical (and measurable) signs of recovery after 6, 12 months Disease prevalence at regional or national levels

Levels of Monitoring and Evaluation

This section presents illustrative core output, outcome, and impact indicators for HIV/AIDS, TB, and malaria. Users should be aware that these indicators have been developed, discussed and agreed upon by a wide range of international and national experts and donors. They have been developed for the specific purpose of minimizing information demands on countries while also assuring that indicators address specific international needs. Countries are encouraged however, to utilize other indicators that will facilitate in gaining a more comprehensive understanding of their national programmes. The indicator development process was guided by six major principles:

- Building on existing indicators;
- Minimizing the number of indicators to be collected;
- Addressing country programme needs;
- Coordinating of national and donor M&E needs;
- Harmonizing with other international frameworks such as the Millennium Development Goals (MDG); and
- Covering a wide range of programme areas and sectors related to HIV/AIDS, TB, and malaria.

Process indicators, are generally common from a medical/public health perspective across the three disease areas and are therefore not specified for each. While there are some differences across the three diseases, these indicators generally take on the following forms:

Generic input indicator: Existence of national policies, guidelines, or strategies. This is a “yes” / “no” question. Reporting of overall budget allocation is included as an input.

Generic process indicator: Number of persons trained, number of drugs shipped/ordered, etc.
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For each disease, general programme areas have been defined. In the case of HIV/AIDS, for example, these include prevention, treatment, care and support, and supportive policy/implementation environments. A summary table showing the different programme areas as well as indicators is presented for HIV/AIDS, TB, and malaria. When looking at the summary tables, readers should be aware that sub-programmes often contribute to multiple outcomes and impact. Although the tables give the impression of a linear progression, assumptions regarding the overall outcome and impact of each sub-programme should be made with caution.

Except for some output and outcome measurements (referred to as “counts”, see below), specific information is provided for each of the indicators presented in the summary tables. This information can be found in the more detailed explanation of each indicator. Information provided for each indicator includes:

- Rationale for use
- Definition, including numerator and denominator
- Measurement – i.e. details on instrument and process
- Data collection platform, sources – i.e. survey, vital registration, in/out-patient registers, facility surveys, inventories, surveillance and sentinel reports
- Recommended periodicity of data collection
- Resources – i.e. reference groups, technical assistance sources, guidelines

Outputs and outcomes here are also monitored and reported as “counts” of increased capacity provided against a need that has been estimated as a pre-condition for change and they can be quantified through direct observation or an annotated inventory. For example, it may be easier to collect the number of health providers trained in a specific area through a record review. For these “counts”, the toolkit does not provide a detailed description, and the definition of associated terms -where relevant-appears under the detailed description of outcome indicators presented in the annexes.

Tables 2a-2d provide an overview of the service delivery areas and common activities under these for each HIV/AIDS, TB, TB/HIV, and Malaria.

Table 2a. Overview of service delivery areas and common activities under these for HIV/AIDS

	Prevention	Treatment	Care and Support	Supportive Environment
HIV/AIDS	<ul style="list-style-type: none"> • Behavioural Change Communication (BCC) - Mass media • Behavioural Change Communication (BCC) - Community outreach • Youth Education and Prevention • Condom distribution • Prevention programmes for specific groups, including harm reduction programs for IDUs • Counseling and testing • Prevention of mother to child transmission (PMTCT) • STI diagnosis and treatment • Post-exposure prophylaxis (PEP) • Blood safety and universal precautions 	<ul style="list-style-type: none"> • Antiretroviral treatment and monitoring • Prophylaxis and treatment for opportunistic infections 	<ul style="list-style-type: none"> • Care and support for orphans and other children made vulnerable by HIV/AIDS • Care and support for the chronically ill and families affected by HIV/AIDS • Care and support for families and communities affected by HIV/AIDS 	<ul style="list-style-type: none"> • Strengthening of Civil Society • Stigma reduction and respect of confidentiality • Advocacy initiatives to increase awareness, mobilize resources and increase political commitment • HIV/AIDS workplace policy and programmes

Table 2b. Overview of service delivery areas and common activities under these for Tuberculosis

	Prevention	Treatment	Care and Support	Supportive Environment
Tuberculosis	<ul style="list-style-type: none"> • Behavioural Change Communication (BCC) - Mass media • Behavioural Change Communication (BCC) - Community outreach • Prevention of tuberculosis infection by identifying and treating infectious cases • Infection control in health care 	<ul style="list-style-type: none"> • Timely detection and quality treatment of cases • Control of drug resistance • Systematic monitoring of performance in case management 	<ul style="list-style-type: none"> • Supporting patients through direct observation of treatment 	<ul style="list-style-type: none"> • Sufficient and quality ensured drugs and lab supplies • Building and maintaining human resource capacity • Operational research agenda targeting barriers to DOTS • Advocacy and increased political commitment to DOTS • Secure adequate financing for sustained DOTS programme

Table 2c. Overview of service delivery areas and common activities under these for TB/HIV

	Prevention	Treatment	Care and Support	Supportive Environment
TB/HIV	<ul style="list-style-type: none"> • Prevention of TB disease among PLWHA • Prevention of opportunistic infections with co-trimoxazole in PLWHA with TB • HIV prevention for TB patients 	<ul style="list-style-type: none"> • Treatment of HIV/TB co-infection • ART for TB patients • HIV care and support for HIV positive TB patients 		<ul style="list-style-type: none"> • Building and maintaining human resource capacity • Operational research agenda targeting barriers to DOTS • Advocacy and increased political commitment to DOTS • Secure adequate financing for sustained DOTS programme

Table 2d. Overview of service delivery areas and common activities under these for Malaria

	Prevention	Treatment	Care and Support	Supportive Environment
Malaria	<ul style="list-style-type: none"> • Behavioural Change Communication (BCC) - Mass media • Behavioural Change Communication (BCC) - Community outreach • Increasing use of insecticide-treated nets (ITNs) • Prevention of malaria in pregnancy • Indoor Residual Spraying/ Vector control through containment of open water sources • Prediction and containment of epidemics 	<ul style="list-style-type: none"> • Prompt effective antimalarial treatment • Monitoring of drug resistance • Home based management of malaria 		

There are many nationally, and internationally, agreed upon impact level indicators that have been agreed for these three diseases. Although they are not the focus of this guide, they merit mention as long-term programme objectives should try to work towards these. The indicators below are worded in general terms, and references to documents and people who can provide their exact wording and methods of measurement can be found under the “Resources” section found at the end of each disease-specific section in the toolkit.

Table 3: Overview of common outcome and impact indicators for HIV/AIDS, TB, and Malaria

HIV/AIDS	TB	Malaria
<ul style="list-style-type: none"> Percentage of young people who have had sex before the age of 15 Percentage of young people who had sex with more than one partner last year Percentage of high risk groups who have adopted behaviours that reduce transmission of HIV Percentage of young people aged 15-24 reporting the use of a condom during sexual intercourse with a non-regular sexual partner Decrease in the proportion of men reporting sex with a sex worker in the last 12 months Increase in the number of blood units transfused during the last 12 months that have been adequately screened for HIV according to national or WHO guidelines Percentage of people remaining on treatment at 6, 12 and 24 months Percentage of people still alive at 6, 12 and 24 months after initiation of ARV Percentage of adults on ARV treatment who gain weight by at least 10% at 6 months after the initiation of treatment Reduced percentage of high risk groups (sex workers, clients of sex workers, men who have sex with men, injecting drug users) who are HIV infected Reduced percentage of young people aged 15-24 who are HIV-infected Reduced percentage of HIV-infected infants born to HIV-infected mothers Reduced adult HIV prevalence (ages 15-49) Increased survival among PLWHA 	<ul style="list-style-type: none"> Increased proportion of incident TB cases (estimated) that are detected under DOTS Increase proportion of detected TB cases that are successfully treated Reduced prevalence of TB Reduced number of deaths from TB 	<ul style="list-style-type: none"> Reduced all-cause under 5 mortality (endemic areas) Reduced Malaria specific mortality Reduced Malaria specific morbidity

Frequently asked questions

Technical questions

1. What is the difference between monitoring and evaluation?

Monitoring is the *routine* tracking of the key elements of programme/project performance, usually inputs and outputs, through record-keeping, regular reporting and surveillance systems as well as health facility observation and client surveys. Monitoring helps programme or project managers determine which areas require greater effort and identify areas that might contribute to an improved response. In a well-designed monitoring and evaluation system, monitoring contributes greatly towards evaluation. Indicators selected for monitoring will be different depending on the reporting level within the health system. It is very important to select a limited number of indicators that will actually be used by programme implementers and managers. There is a tendency to collect information on many indicators and report this information to levels where it will not and cannot be used for effective decision-making.

In contrast, evaluation is the *episodic* assessment of the change in targeted results that can be attributed to the programme or project/project intervention. In other words, evaluation attempts to *link* a particular output or outcome directly to an intervention after a period of time has passed. Evaluation helps programme or project managers determine the value or worth of a specific programme or project. Cost-effectiveness and cost-benefit evaluations are useful in determining the added value of a particular programme or project.

2. What is the difference between national and sub-national M&E?

In view of scarce M&E resources at sub-national level, emphasis is placed on monitoring programme inputs and outputs and assessing whether or not implementation progresses according to a sub-national plan. A small facility assessment as part of a routine supervision could serve to provide information on the quality of care or the availability and utilization of services. At all levels, both monitoring and evaluation are needed.

Sub-national data is extremely relevant for national level M&E provided that national guidelines are followed to make aggregation possible. Information gathered from the sub-national level is helpful in guiding policy discussions and in validating results at higher levels. In some cases, data from the sub-national provides a better indication of trends. For example, if a country has actual data on condom distribution by district (or equivalent) instead of one national overall figure, monitoring of trends in condom use may become more meaningful and more accurate.

3. What is the difference between programme and project M&E?

Programme refers to an overarching national or sub-national response to the disease. Within a national programme, there are typically a number of different areas of programming. For example, the HIV/AIDS programme has a number of “sub-programmes or projects” such as blood safety, STI control, or HIV prevention for young people. *Project* refers to a mix of interventions with activities supported by resources, that aim at a specific population defined geographically or otherwise. It should be noted that projects and programmes can also be defined by timeframes – projects are usually short term where as programmes are usually longer term in scope.

In view of its wider scope (thematic, geographic, target population), programme monitoring tends to be more complex than project monitoring and requires strong coordination among all implementing agencies. Programme evaluation is even more difficult, especially for certain types of evaluations (outcome and impact evaluations). For such evaluations to be conducted, the design of the programme/project must include its own baseline and follow-up assessments measuring not only specific outcomes but also the level of exposure to the programme/project and its activities. (See question 4 for more details on evaluations)

4. When is the appropriate timing for an evaluation?

The timing for a specific *type* of evaluation depends on the implementation status of a programme or project. There are four types of programme or project evaluations:

- Formative evaluation
- Process evaluation
- Outcome evaluation
- Impact evaluation

Formative evaluation is conducted in the design phase of a prevention and care programme to identify and resolve intervention and evaluation issues before the programme is widely implemented. Formative evaluation identifies transmission dynamics, assists in identifying effective interventions and helps define realistic goals.

Process evaluation involves the assessment of the programme or project’s content, scope or coverage together with the quality of implementation. If the process evaluation finds that the programme/project has not been implemented, or is not reaching its intended audience, it is not worth conducting an outcome evaluation. However, if process evaluation shows progress in implementing the programme/project as planned, then it is worth carrying out such an evaluation.

In *outcome evaluation*, the evaluation is designed specifically with the intention of being able to attribute the changes to the intervention itself. At the very least, the evaluation design has to be able to plausibly link observed outcomes to a well-defined programme or project, and to demonstrate that changes are not the result of non-programme/project factors.

If the evaluation shows a change in outcomes, then it is time for *impact evaluation*. True impact evaluation, able to attribute long-term changes to a specific programme or project, is very rare and quite costly. Rather, monitoring impact indicators taken in conjunction with process and outcome evaluations are considered to be sufficient to indicate the overall impact.

5. Does evaluation require more than monitoring?

As seen in questions 1 to 4, the objectives and the methodology used in monitoring and evaluation are different. In general, evaluations are more difficult in view of the methodological rigor needed; without such rigor, wrong conclusions on

the value of a programme or project can be drawn. They are also more costly, especially outcome and impact evaluations which require population-based surveys.

6. What is operations research?

Operations Research (OR) is a rigorous type of evaluation that complements M&E systems. The main objective of OR is to provide programme managers and policy makers with the required information to develop, improve, or scale-up programmes. It can be thought as a practical, systematic process for identifying and solving programme-related problems. The process has five key steps:

1. Problem identification and diagnosis
2. Selection of a programme strategy
3. Strategy testing and evaluation
4. Information dissemination
5. Information utilization and scaling-up

Once operations research shows that a given intervention can be effective, tracking more generalized implementation is needed through a strong national M&E system. For example, if OR shows that sex education in selected high schools can reduce risk behavior, repeated behavioral surveys among a national sample of high-school students would be needed to reflect changes in risk behavior following the integration of sex education into the nation-wide curriculum.

7. Are all indicators equal?

The M&E conceptual framework discussed earlier shows that the different types of indicators are not equal but *linked* to each other to reach the intended goals and objectives of a specific programme. Inputs such as money and staff time result in outputs such as delivery systems for drugs or other essential commodities, new or improved services, trained staff, informational materials, etc. If these outputs are well designed and reach the populations for which they were intended, the programme is likely to have positive outcomes – depending on the context in which it operates. These positive outcomes should lead to changes in the longer-term impact of programmes on target populations or systems.

8. How often are different indicators measured?

The frequency of reporting will depend on the place of the indicators within the M&E conceptual framework – taking into account a reasonable time frame for an expected change and programme capacity for M&E. The following reporting schedules are suggested:

Type of indicator	Recommended frequency of measurement
Input	continuously
Process	Quarterly, semi-annually, or annually
Output	Quarterly, semi-annually, or annually
Outcome	1 to 3 years
Impact	2 to 5 years

9. Why do we need standard indicators?

The use of standard indicators provides the National Programme with valuable measures of the same indicator in different populations, permitting triangulation of findings and allowing regional or local inconsistencies and differences to be noted and addressed. This helps to direct resources to regions or sub-populations with greater needs and to identify areas for intensification or reduction of effort at the national level, ultimately improving the overall effectiveness of the national response. The use of standard indicators also ensures comparability of information across countries and over time.

In designing their own evaluation activities, *projects* should also bear in mind the national standard for indicators in that field. Projects may have their own information needs that conform to a rigorous evaluation design. However, whenever possible they should choose indicators with standard references, e.g. reference periods, numerators, denominators collected consistently over various time periods that would allow the data they collect to be fed easily into the national M&E system, and compared over time.

10. How do M&E of HIV/AIDS, Tuberculosis and Malaria fit into national health information systems?

Building or strengthening national health information systems (NHIS) is a pre-requisite for proper monitoring of the three diseases and the response to them. Increased funding in the three disease areas creates an opportunity to strengthen not only programme or project specific health information, but also the health information and surveillance systems as a whole. HIV/AIDS, TB and malaria have different strengths related to data collection, dissemination, and use; opportunities exist for the three diseases to leverage each other's strengths.

An effective NHIS provides a solid basis for evaluations of large-scale programmes, ultimately leading to improved planning and decision-making. Urgent decisions such as how to allocate new resources to achieve the best overall result will become easier to make.

Operational questions

1. How to select indicators from the core list provided in this toolkit?

In deciding on a set of indicators, countries are *not* limited to the core list presented in this toolkit and should not necessarily collect all of them. The choice of indicators should be driven instead by the goals of the national programme or project. There is no point in collecting data on areas that are not relevant to the local context, bearing in mind that it costs time and money to collect and analyze data for each indicator. However, where they fit their needs, national programmes are encouraged to use the core indicators proposed in this toolkit to ensure standardization of information across countries and over time.

The following guiding principles help in choosing the most appropriate set of indicators and associated data collection instruments:

1. Use a conceptual framework for M&E for proper interpretation of the results (see above for suggested framework);
2. Ensure that the indicators are linked to the programme or project goals and are able to measure change;
3. Ensure that standard indicators are used to the extent possible for comparability over time and between countries or population groups;
4. Consider the cost and feasibility of data collection and analysis; and
5. For HIV/AIDS, take into account the stage of the epidemic
6. Keep the number of indicators to the minimum needed, with specific reference to the level of the system that require and will use which indicators to make programming and management decisions. Additional indicators can always be identified later.

2. Does planning data collection for selected indicators require different strategies?

The cost, difficulty, and capacity required for collecting information increase as indicators shift from input through outputs and from outcome to impact. The reverse is true when assessing the impact of programme related interventions, which decreases as indicators move from input to impact.

Input and output data are often easy and less costly to collect. It should be possible to collect data for input and output indicators centrally from regular health monitoring systems, provided that such systems are functional. Programme planners should take strategic advantage of the increased attention to HIV/AIDS, TB, and malaria programmes and request funding for strengthening national health information and surveillance systems that can be used to report on all these as well as other disease-specific programmes.

Data for many outcome and impact indicators are collected through more costly and difficult population-based or health facility surveys, requiring some expertise in research methods. Outcome measurement is usually more difficult in view of the sensitivity and specificity of each indicator.

3. How to capitalize on existing data collection efforts?

In devising their data collection plans, countries should take into account to the extent possible:

- The timing of costly population-based surveys such as DHS in which modules can be included to obtain data on a number of indicators relevant to the three diseases;
- The existence of data already collected by agencies not directly involved in one of the three specific diseases, but that can help in monitoring,

4. How much from the total national programme budget should be allocated to M&E?

Ensuring that resources are well used requires a coherent M&E system. It is, therefore, recommended that about 5-10 percent of the national programme budget are used for M&E; 7% is generally accepted. This percentage should be calculated taking into account external donor and national resources together. Also, between 3 percent and 5 percent of regional and district (where appropriate) financial resources should be devoted to M&E activities at those levels.

Funders are increasingly realizing that project funds should be allocated to the development of an M&E system in order to assure that information related to the project can be collected, reported, and used. As a result, additional resources have become available as part of larger grants. This allows for the development of coherent systems rather than ad hoc efforts.

5. How to optimize the use of M&E funds?

The following recommendations help ensure that M&E funds are properly invested:

- Develop systems rather than implement ad hoc data collection efforts. The initial investment cost is to be seen in light of the incremental benefit of more regular or more extensive data collection, ultimately resulting in a less costly exercise.
- Consider both short and long-term needs to ensure smooth continuity of national programmes.
- Mobilize key M&E players in the country through an M&E support group to avoid duplication of efforts.
- Use commonly agreed upon M&E frameworks for comparability purposes.

6. How to optimize the use of data?

The ultimate goal of data collection is to ensure that data are fed back into the decision-making process. Data are powerful tools for advocacy, generating resources, accountability, programme design and improvement, and attributing changes to specific interventions and programming (or reorientation of programmes) where possible. Based on lessons learnt over the past years, the following steps help optimize the use of data:

- Produce quality data, requiring serious investment throughout the data collection process;
- Identify the different end-users, and present and package the data according to their needs, focusing on a minimal number of indicators at each level;
- Set up mechanisms for an efficient data-use system, including feedback through supervision at all levels, and assurances that data at a given level is relevant and actionable at that level.
 - o Ensure ownership throughout the data collection exercise, which means that national and local M&E capacities must be strengthened to guarantee uniform and quality data within a sustainable framework;
 - o Ensure that an M&E support group with strong presence from the government, donor agencies, NGOs, and academic institutions is established to guide the government throughout the development and implementation of national M&E strategies. This will improve the credibility of the data generated by the government; and
 - o Allocate sufficient resources for the development and implementation of a data-use plan.

7. How to avoid that donor demands drive all health information investments?

To ensure that donor demands do not drive all health information investments – with the risk of having different demands – the following steps are recommended:

- Establish a platform under country leadership with strong donor involvement;
- Advocate for building a health information system that provides quality and timely information;
- Use – to the extent possible – commonly agreed upon M&E frameworks and standard indicators. Such frameworks are found in global M&E guidelines developed through a participatory process that involved M&E stakeholders from major donor agencies;
- In cases where two or more donors have multiple demands, refer to global guidelines to reconcile differences.

8. What are the key lessons learnt from successful M&E systems?

1. Implementing partners should collect complete input and output data. Many of them should collect process data. Far fewer should assess outcomes. Even fewer will assess impact.
2. Good M&E requires both internal self-assessment and external verification. Thus, while implementing partners should collect and verify their own internal data, an external agency should verify the completeness and accuracy

of the data collected by those implementing partners. Supervisory visits should be based on the analysis of internal self-assessment and externally verified primary data.

3. M&E systems must be as simple as possible. Most programmes and projects collect far more data than they use. The more complex an M&E system is, the more likely it will fail.
4. M&E systems must include a standardized core set of tools to collect and analyse data. If each implementing partner uses different systems or tools, the data cannot be analyzed or summarized effectively. The need for a standardized core does not preclude individual implementing partners from collecting additional situation-specific M&E data.
5. A specialized entity is required to collect, verify, enter and analyze primary M&E data from each partner. Without such an entity, data collection, verification and analysis are unlikely to happen. Ministries and other public agencies are seldom equipped to manage such a process. Increased resources devoted to HIV/AIDS, TB and malaria should be used to build local capacity within such a national entity.
6. M&E must be built into the design of a programme and must be operational when grant implementation begins, not added later. It is much harder and less effective to “retrofit” M&E after grant implementation is underway.
7. Sub national data are important for the national level data collection as they can be aggregated up to this level. However, subnational data are more relevant to programme managers in making day to day decisions.

No matter how sound an M&E system may be, it will fail without widespread stakeholder “buy-in.” Thus, a large-scale, participatory process in the development and implementation of M&E strategies is essential to build ownership and “buy-in” from the start.

Common questions related to the toolkit and the Global Fund to Fight HIV/AIDS, Tuberculosis, and Malaria

1. How the toolkit fits into the Global Fund?

The Global Fund has to raise money, allocate funds to projects, and show these funds are helping tackle HIV/AIDS, TB and Malaria. In brief it aims to “*raise funds, spend them, and help prove their contribution*” in partnership with other international and national organizations, and crucially the projects which implement the grants.

The Global Fund aims to reach more people with quality services. A central aim is to *increase coverage* of prevention, treatment and care of HIV/AIDS, TB and Malaria and measure this. For each service, it is therefore important to report on:

- (1) number trained to deliver the service
- (2) number of service delivery points created, and most importantly
- (3) number of people reached with these services.

The minimal focus of coverage needs supplementing with more traditional indicators (which may show the full sequence from input, process, output to outcome). In addition, changes to population behaviours and disease impacts are reported over time in collaboration with country partners.

Performance evaluation of projects is central to the Global Fund mechanism, to ensure raising, spending and proving the contribution of funds are closely related. Funds are released when progress against agreed targets is met, which are built into the grants. This requires overall goals to be clearly stated, indicators chosen and progress reported. Performance will be based on how well different coverage level indicators can be measured, documented and verified against agreed targets. Wider measures of progress should also be reported, but core performance will rely on clear targets for service delivery areas. Performance evaluation helps check money is well spent relative to project goals, and ultimately services are provided to those affected by disease. It also develops an evidence base and platform to advocate sustained and dependable funding.

The Global Fund is a *financing mechanism rather than a technical agency*. It has therefore brought together technical agencies to agree on a core set of indicators across the three diseases in this toolkit. Standardization is important to simplify monitoring and evaluation efforts. Furthermore it allows the Global Fund to describe progress and coverage across very varied projects and settings.

This section introduces how monitoring and evaluation information is used by the Global Fund and provides notes on coverage and cross cutting indicators.

2. How is the information used by the Global Fund?

The Monitoring and Evaluation Plan is a central part of grant applications, the grant agreement signed by both sides, and the basis for ongoing “performance evaluation”. Only a minimum set of indicators are reported upwards to the Global Fund, together with evaluation reports which put progress in context. The indicators covered in the toolkit are therefore only “the tip of the iceberg” of the full monitoring and evaluation plan. They need to be interpreted in this wider context.

Alongside traditional stages of M&E increased end coverage is emphasised (of training, service delivery points and people reached), to evaluate if more people are being reached by more quality services. The aim is to push performance evaluation down to the lowest level, reporting upwards a minimum set of common indicators across projects. The information collected is used at three main stages of performance evaluation:

- Agreement on a few indicators of progress is used for **Regular Financial Release**. The indicators are initially based on funds spent in an agreed manner, and progress in activities. As the program becomes established reporting shifts to higher level indicators, increased numbers tested or treated and coverage.
- **Annual reports** from projects provide updates of progress, barriers, successes and failures. There is also reporting on major indicators for each service category area and improved coverage. The Global Fund uses these updates to report on progress in coverage across its portfolio, increased numbers trained, service points, and people receiving prevention, care and treatment.
- A key date in performance evaluation is the **Second Year Review**. This is used to assess whether funding is continued over the initially approved 5 year plan. It will include a comprehensive report on progress where indicators are put in context.

As large amounts of funds are disbursed through the Global Fund, performance evaluation helps ensure they are correctly allocated financially and in relation to providing more quality services to more people. For most projects it also provides a platform in which to communicate evidence of progress internally and externally, and make the case for sustained funding.

3. Coverage and cross cutting indicators

The Global Fund does not create new indicators but uses those already developed and agreed by technical partners. However as a Fund it needs to report on coverage across its projects, not always captured by national level indicators.

The Fund needs to show its activities are improving **coverage** in prevention, treatment and care. Coverage includes **numbers trained, increased service points, and people reached by prevention, care and treatment**. Some of these indicators are process, output or outcome measures. They should be included where possible in reporting to the Global Fund even when they do not always fully fit into a traditional M&E framework.

Coverage	
3	Number of people reached by the services
2	Number of service points supported by the funding
1	Number of providers trained in the service

Programs should avoid double-counting the same individual within one program/service area during each reporting period. However it is acceptable to count the same person in multiple program/service areas (for example ART and Palliative Care). Training refers to new training or retraining of individuals and assumes training is conducted according to national or international standards when these exist. Services which receive Global Fund resources should be included.

The type of services and people receiving training and services should be monitored by the project, by gender, age, rural/urban, government/non-government/private sector, health personnel, non-health personnel etc. These are not always reported routinely to the fund.

Similarly several cross-cutting indicators for all three disease areas have been identified as important to track. The summary table below presents these indicators. Unlike the disease-specific indicators presented under each HIV/AIDS, Tuberculosis, and Malaria, these indicators are not discussed in-depth in the accompanying toolkit annexes, although they should be measured as part of any Global Fund project. They are generally included in the indicator boxes for “supportive environment” in the proposal form and software:

Summary table of cross cutting indicators for HIV/AIDS, Tuberculosis, and Malaria

Area	Indicator
Health systems strengthening	<ul style="list-style-type: none"> Number of project staff trained % of project budget spent on health infrastructure % of project beneficiaries (patients) who are accurately referred
Coordination and partnership development	<ul style="list-style-type: none"> Number of networks/partnerships involved in project
Monitoring and evaluation	<ul style="list-style-type: none"> Number of project service deliverers trained in M&E % of overall project budget spent on M&E
Procurement and supply management capacity building	<ul style="list-style-type: none"> Number of project services deliverers trained in procurement and supply management % of project service delivery points with sufficient drug supplies Unit cost(s) of project drug(s) and commodities

4. How do I use the toolkit for a Global Fund grant?

The toolkit helps guide the proposal application, final monitoring and evaluation plan agreed as an integral part of a grant, and subsequent reporting. The toolkit should be used alongside the **proposal form and/or software** for developing proposals electronically. The software guides you through the proposal form, providing drop down lists of choices of the main indicators described in this toolkit. As you fill in the form, you should print out the toolkit to provide more detail on the choice of indicators.

The M&E plan should build on existing project and national activities. So at each stage the “*other category*” can be used to include other indicators than those recommended in this toolkit and describe them.

A proposal should have clearer defined goals and objectives. Related to these, service category areas to be delivered are defined, with indicators chosen which can measure and report on progress.

a. Defining overall goals and objectives

The first important element is to clearly define goals and objectives for a project, and choose indicators to measure them.

Overall Goals are broad and overarching, for example “*reduced HIV-related mortality*”, “*reduced burden of tuberculosis*”, “*reduced transmission of malaria*”. For each goal **impact indicators** are chosen (from the drop down lists in the software, using the other category if necessary). These targets are generally the aims of a variety of activities, national programs and collaborators working together, not just an individual project

Objectives need to be clearly described for each goal. These describe the intention of the programs for which funding is sought and provide a framework under which services are delivered. Examples linked to the goals listed above include “*to improve survival rates in people with advanced HIV infection in four provinces*”, “*To reduce transmission of tuberculosis among prisoners in the ten largest prisons*” or “*to reduce malaria-related morbidity among pregnant women in seven rural districts*”

b. Choosing service categories and coverage indicators

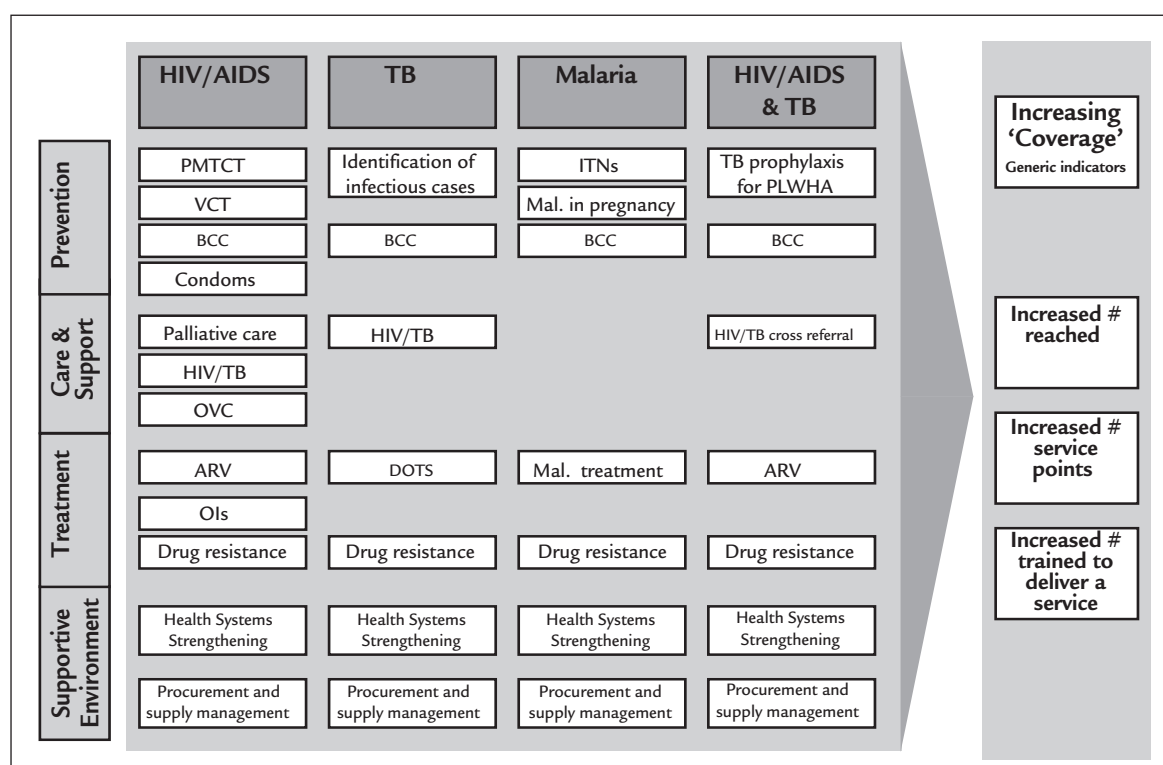
The core of performance evaluation is to identify key **services to be delivered**, and provide targets that can be measured and show improved coverage for each service. The Service Category Areas are described in this toolkit, for example support for orphans, control of TB drug resistance, indoor residual malaria spraying.

For each service area, **indicators** to report on progress to the Global Fund are chosen. These should be measurable and represent project progress. **Targets** are set for a baseline and successive measurement over 5 years. The timing of the measurement of these regular targets should, as far as possible, be aligned with existing data collection and reporting systems.

Initially indicators which are reported to the Global Fund may be low-level indicators, numbers trained, partners included, plans approved, and other individual **activities**. As service areas are established reporting should move to higher level output and outcome indicators, numbers of people reached and treated. They should aim to report on successive levels of coverage: (1) the numbers trained to deliver the service (2) the number of service delivery points created, and most importantly (3) the numbers of people reached with these services.

Core performance will be based on how well different coverage level indicators can be measured, documented and verified against agreed targets for each service delivery area. An illustrative overview below shows that performance is based on choosing a few indicators for each service area, which contribute to measuring overall coverage against targets set (alongside more extensive indicators used to show wider progress).

Schematic overview of selected service delivery areas and generic coverage indicators



A note on how indicators are presented: Summary tables for each HIV/AIDS, TB, and malaria provide an overview of the indicators that are included in this toolkit. Annexes are also available and provide in-depth descriptions for these. In order to facilitate the referencing of indicators from the summary tables to the related annexes, indicators have been named according to their activity area (i.e., prevention, care and support, or treatment) and a number (i.e., 1, 2, 3,...). Therefore, the first prevention indicator is named PI (prevention indicator) 1, and so on.

The references do not relate to any categorization of the same indicators in other publications.

HIV/AIDS

This section of the toolkit provides a specific overview of indicators at the output and outcome levels and general M&E resources for HIV/AIDS (in addition to those provided for each indicator). Each of the HIV/AIDS indicators is *applicable* to all settings, with the exception of the indicators covering injecting drug users (IDU) and HIV prevalence. The IDU indicator is applicable to countries where injecting drug use is an established, significant mode of HIV transmission. Likewise, the indicator for orphans and vulnerable children (OVCs) will be less relevant in low level/concentrated epidemics. Countries with low HIV prevalence or concentrated epidemics should report on an alternative indicator of HIV prevalence among high-risk behavior groups, as opposed to prevalence among young people obtained from antenatal clinic sentinel surveillance. Additional and alternative indicators may be found in the UN General Assembly Special Session (UNGASS) on AIDS document entitled “*Monitoring the Declaration of Commitment on HIV/AIDS Guidelines on the construction of core indicators*” (UNAIDS, 2002) as well as other documents referred to under the “Resources” section.

Details for the most recent indicators for the different programs or initiatives can be found in the original sources referenced at the end of this section. The field has been moving rapidly but key partners have reached consensus on a number of core and additional indicators for the various programs or initiatives. The recent scaling-up of ARV therapy, under the 3 by 5 Initiative of WHO and partners, have led to a number of 3 by 5 M&E guidelines, and national guidelines addressing prevention and care and treatment.

General resources

At WHO, the HIV department (<http://www.who.int/hiv/en/>) can provide a wide range of assistance, including the latest publications related to M&E in the health sector. In particular, the Strategic Information and Research (SIR) unit will be of interest to readers.

In addition to guidelines and general resources in the area, the web site of the HIV department provides the latest information on WHO’s 3 by 5 initiative, including the latest facts and figures.

Since the creation of UNAIDS, a number of M&E resource groups – mainly at global level – were established to improve coordination among key M&E players. Currently, there are a total of five groups:

- The UNAIDS Monitoring and Evaluation Reference Group (MERG) – composed of cosponsors/Secretariat M&E focal points, bilateral agencies, research institutes, and individual experts – that assists in harmonizing M&E approaches and improving methods.
- The UNAIDS Estimates, Modelling and Projections Reference Group and UNAIDS/WHO working group on surveillance and estimates for HIV transmission and mortality.
- The Inter-Agency M&E coordination working group – composed of key UNAIDS cosponsors, Secretariat and Global Fund to Fight AIDS, TB and Malaria M&E focal points – that assists in improving coordination among global M&E actors.
- The UNAIDS Evaluation Unit – composed of UNAIDS Secretariat staff – that assists in the development of generic M&E systems for strategic information sharing.
- The Global Monitoring and Evaluation Support Team (GAMET) – composed of World Bank personnel and staff seconded from technical agencies – that focuses on M&E country support in World Bank-supported countries.

These resource groups have contributed to the development of the illustrative indicators presented here.

UNAIDS and partners have been encouraging governments to set up a national level M&E reference/support group to provide advice on national M&E strategies, and to assist in mobilizing resources for M&E and optimizing the use of data. Where those groups exist, coordination among partners has tremendously improved.

Technical assistance

Although technical support to governments is available through the Strategic Information and Research (SIR) of WHO’s HIV/AIDS department (<http://www.who.int/hiv/en/>) and M&E technical support groups in some countries, additional assistance can be sought from the Evaluation Unit at the UNAIDS Secretariat at UNGASSindicators@unaids.org for specific questions on UNGASS Declaration of Commitment (UNGASS DoC) indicators, or at M-E@unaids.org for general M&E questions. Other sources of support for all the diseases include: WHO, CDC, Measure Evaluation, Partners for Health Reform Plus (USA), Institute for Health Systems Development (UK). Further support for HIV/AIDS includes: Measure Evaluation and Measure DHS, FHI, The Synergy Project.

For specific questions related to the M&E of HIV/AIDS, in particular related to the scaling-up of ARV treatment assistance can be sought at hivmoniteva@who.int

Summary table for HIV/AIDS

	Service delivery area	Output	Outcome
Prevention	<ul style="list-style-type: none"> Behavioural Change Communication (BCC) - Mass media Behavioural Change Communication - Community outreach 	<ul style="list-style-type: none"> HIV/AIDS radio/television programmes/newspapers produced and distributed* Number of peer/community educators active* 	<ul style="list-style-type: none"> Knowledge about HIV prevention among young people (number* and percentage) (HIV-PI1)
	<ul style="list-style-type: none"> Youth Education 	<ul style="list-style-type: none"> Provision of life-based HIV/AIDS education in schools (HIV-PI2) Young people exposed to HIV/AIDS education in school settings* (under development) 	<ul style="list-style-type: none"> Delayed sexual debut, reduced number of sexual partners*** Delayed sexual debut, reduced number of sexual partners***
	<ul style="list-style-type: none"> Condom distribution 	<ul style="list-style-type: none"> Retail outlets and service delivery points with condoms in stock (HIV-PI3) Condoms sold through public sector* Condoms sold through private outlets* 	<ul style="list-style-type: none"> Young people's condom use with non-regular partners (number* and percentage) (HIV-PI6)
	<ul style="list-style-type: none"> Programmes for specific groups 	<ul style="list-style-type: none"> Sex workers & clients exposed to outreach programmes* (number and percentage**) MSM exposed to outreach programmes* (number and percentage**) Mobile populations exposed to outreach programmes* (number and percentage**) IDUs reached by prevention services (number* and percentage) (HIV-PI4) 	<ul style="list-style-type: none"> IDUs: safe injecting and sexual practices (number* and percentage) (HIV-PI5)
	<ul style="list-style-type: none"> Counseling and Testing 	<ul style="list-style-type: none"> Prevention and care service points * (HIV-PI7) 	<ul style="list-style-type: none"> Women completing the testing and counseling process (HIV-PI8)*
	<ul style="list-style-type: none"> PMTCT 	<ul style="list-style-type: none"> Health facilities offering minimum package of PMTCT* (HIV-PI9) 	<ul style="list-style-type: none"> HIV-infected pregnant women receiving a complete course of antiretroviral prophylaxis to reduce the risk of MTCT (number* and percentage) (HIV-PI10)
	<ul style="list-style-type: none"> STI diagnosis and treatment 		<ul style="list-style-type: none"> STIs: comprehensive case management (HIV-PI11)
	<ul style="list-style-type: none"> Post-exposure prophylaxis (PEP) 	<ul style="list-style-type: none"> People receiving post-exposure prophylaxis* 	
	<ul style="list-style-type: none"> Blood safety and universal precautions 		<ul style="list-style-type: none"> Districts with access to donor recruitment and blood transfusion (HIV-PI12) Transfused blood units screened for HIV (HIV-PI13)
Treatment	<ul style="list-style-type: none"> Antiretroviral treatment(ART) and monitoring 	<ul style="list-style-type: none"> Health facilities capable of providing advanced interventions for prevention and medical treatment for HIV infected persons (HIV-TI2) 	<ul style="list-style-type: none"> People with advanced HIV infection receiving antiretroviral combination therapy (number* and percentage) (HIV-TI1)
	<ul style="list-style-type: none"> Prophylaxis and treatment for opportunistic infections (OIs) 	<ul style="list-style-type: none"> Health facilities with capacity to deliver basic level counseling and medical services for HIV/AIDS (number* and percentage) (HIV-TI3) 	

	Service delivery area	Output	Outcome
Care and Support	<ul style="list-style-type: none"> Support for orphans 	<ul style="list-style-type: none"> Families exposed to succession planning programmes (number and percentage*) Number of HIV+ parents counseled* Number of meals provided at schools* Number of community organizations that received support to assist OVC* 	<ul style="list-style-type: none"> Orphans and other children made vulnerable by HIV/AIDS whose households received free basic external support (number* and percentage) (HIV-CS1) OVC receiving meals (number and percentage**) Orphans' school attendance (HIV-CS2)
	<ul style="list-style-type: none"> Support for the chronically ill 	<ul style="list-style-type: none"> Number of community organizations that received support to assist PLWHA* 	<ul style="list-style-type: none"> Chronically ill adults whose households received free basic external support (number* and percentage)
Supportive Environment	<ul style="list-style-type: none"> Workplace 	<ul style="list-style-type: none"> Large enterprises/companies that have HIV/AIDS workplace policies and programmes (number* and percentage) (HIV-SE1) 	
	<ul style="list-style-type: none"> Strengthening of civil society 	<ul style="list-style-type: none"> Number of NGOs dealing with HIV/AIDS services* 	
	<ul style="list-style-type: none"> Adult support of youth education on condom use 	<ul style="list-style-type: none"> Adult support of education about condom use to prevent HIV/AIDS among young people (HIV-SE2) 	
	<ul style="list-style-type: none"> Stigma 	<ul style="list-style-type: none"> Number of PLWHA support groups fighting against discrimination* 	
<p>* Outputs and outcomes here can also be measured as "counts" and they can be quantified through direct observation or an annotated inventory. For these "counts", the toolkit does not provide a detailed description in the annexes.</p> <p>** Both percentages and numbers ("counts") are required. However, if a denominator cannot be obtained, focus should be on the "count".</p> <p>*** Detailed description of this indicator is not provided in the annexes.</p>			

Detailed descriptions for each of the indicators listed above are provided in Annex A and the guidelines defining those are listed in the following section («Guidelines»). It should be noted that the indicators presented above and in the annex are not comprehensive, and readers should refer to the individual guidelines for a more complete listing of all core and additional indicators in this area.

Software products

UNAIDS has put at the disposal of countries a useful tool – the *Country Response Information System* (CRIS) – that has the potential to house all national data obtained on core and additional indicators and generate reports on those indicators. The CRIS includes two additional functions: resource tracking and research inventory.

To learn more about the process of indicator development and the suggested actions to implement the DoC M&E framework, readers are encouraged to consult the Guidelines on construction of core indicators that exist in four languages (English, French, Spanish and Russian) and that can be downloaded from UNAIDS web site. For more information on the CRIS, also please visit the UNAIDS web site.

Guidelines and Essential References on Monitoring and Evaluation

The major sources for guidelines cited below are UNAIDS, WHO, UNICEF, USAID, CDC, MEASURE and FHI, and some of their partners.

Upcoming M&E Guidelines (2004) by WHO and partners, in addition to those below, will address Testing and Counseling and integrated prevention and care.

The latest versions of the various guidelines may be found on the Internet in the UNAIDS M&E library at:

http://www.unaids.org/EN/in+focus/monitoringevaluation/m_e+library.asp

Alternatively, readers may also want to access the following partner sites for more detailed information in specific areas:

<http://www.who.int>

<http://www.unicef.org>

<http://www.cpc.unc.edu/measure>

<http://www.fhi.org>

<http://www.cdc.gov>

<http://www.usaid.gov>

Centers for Disease Control and Prevention (2002). *Strategic Monitoring and Evaluation: A Draft Planning Guide and Related Tools for CDC GAP Country Programs*. Centers for Disease Control and Prevention, Atlanta. (no url available)

Family Health International (2002). *Evaluating Programs for HIV/AIDS Prevention and Care in Developing Countries: A Handbook for Program Managers and Decision Makers*. Family Health International, Arlington.
(<http://www.fhi.org/en/HIVAIDS/Publications/Archive/evalchap/index.htm>)

Family Health International (2000). *Behavioural Surveillance Surveys (BSS): Guidelines for Repeated Behavioural Surveys in Populations at Risk for HIV*. Family Health International, Arlington.
(<http://www.fhi.org/en/aids/wwdo/wwd12a.html#anchor545312>)

UNAIDS (2002). *Monitoring the Declaration of Commitment on HIV/AIDS Guidelines on the construction of core indicators*
(http://www.unaids.org/html/pub/Publications/IRC-pub02/JC894-CoreIndicators_en_pdf.pdf)

UNAIDS/MEASURE (2000). *National AIDS Programmes: A Guide to Monitoring and Evaluation*. UNAIDS, Geneva.
(<http://www.cpc.unc.edu/measure/guide/guide.html>)

USAID/UNAIDS/WHO/Policy Project (2003). *The Level of Effort in the National Response to HIV/AIDS: The AIDS Program Effort Index (API) 2003 Round*.

USAID/UNAIDS/WHO/CDC/Policy Project (2004). *Coverage for Selected Services for HIV/AIDS Prevention and Care in Low and Middle Income Countries in 2003*

UNAIDS/World Bank (2002). *National AIDS Councils (NACs) Monitoring and Evaluation Operations Manual*. UNAIDS/World Bank, Geneva.
(http://www1.worldbank.org/hiv_aids/docs/M&E%20Manual.pdf)

WHO (2003). *The Monitoring and Evaluation (M&E) of the 3 by 5 Initiative*. WHO, Geneva.
(<http://www.who.int/3by5/publications/briefs/monitoring/en/>)

WHO (2003). *Guidelines for surveillance of HIV drug resistance*. WHO, Geneva.
(<http://www.who.int/3by5/publications/documents/hivdrugsurveillance/en/>)

WHO (2003). *Integrated Management of Adolescent and Adult Illness (IMAI) modules*. WHO, Geneva.

WHO (2003). *Monitoring and evaluating of national ART programmes in the rapid scale-up to 3 by 5*. WHO, Geneva.
(<http://www.who.int/3by5/publications/documents/artindicators/en/>)

WHO/UNAIDS (2004). *National AIDS Programmes: A guide to monitoring and evaluating HIV/AIDS care and support*. WHO, Geneva.
(<http://www.who.int/hiv/pub/epidemiology/pubnapcs/en/>)

WHO/UNAIDS (2000). *Second Generation Surveillance for HIV: The Next Decade*. UNAIDS, Geneva.
(http://www.who.int/hiv/pub/surveillance/en/cds_edc_2000_5.pdf)

WHO/UNAIDS/Measure DHS/The World Bank/ UNICEF/UNESCO/FHI/USAID. (2004) *Guide to Monitoring and Evaluating National HIV/AIDS Prevention Programmes for Young People (10 to 24 years old)*. WHO, Geneva.
(http://www.who.int/hiv/pub/epidemiology/me_prev_yo/en/)

Tuberculosis

This section provides an overview of the core indicators for TB control and offers resources for more in-depth consideration of monitoring and evaluation in TB. The indicators are general in nature and appropriate for monitoring TB control, particularly through national TB control programmes. The indicators do not specifically address the additional monitoring needs of innovations in service delivery such as community-based care or engagement of the private sector. A compendium of indicators for monitoring TB control activities is under preparation by the Working Group on Indicators whose partners are listed in the general resources. Many of the indicator definitions provided in this toolkit were drawn from a draft of the compendium and are being tested in some settings.

Summary table for tuberculosis

	Service delivery area	Output	Outcome
Prevention	<ul style="list-style-type: none"> Identification of infectious cases 		<ul style="list-style-type: none"> New smear positive TB cases detected under DOTS (number* and percentage) (TB-PI 1)
Treatment	<ul style="list-style-type: none"> Timely detection and quality treatment of cases Control of drug resistance 	<ul style="list-style-type: none"> Population covered by DOTS (number* and proportion) (TB-TI 1) 	<ul style="list-style-type: none"> Smear-positive TB cases registered under DOTS who are successfully treated (TB-TI 2) (number* and percentage) New smear-positive cases registered under DOTS who fail treatment (number* and percentage) (TB-TI 3)
Supportive Environment	<ul style="list-style-type: none"> Sufficient drug and laboratory supplies Capacity building 	<ul style="list-style-type: none"> Number of health facilities involved in DOTS with sufficient drug and laboratory supplies Number of health facilities and laboratories involved in DOTS with sufficient capacity for DOTS 	
<p>* Outputs and outcomes here are also measured as “counts” of increased capacity provided against a need that has been estimated as a pre-condition for change and they can be quantified through direct observation or an annotated inventory. For these “counts”, the toolkit does not provide a detailed description in the annexes.</p> <p>** Both percentages and numbers (“counts”) are required. However, if a denominator cannot be obtained, focus should be on the “count”.</p>			

The detailed description of each of the indicators listed above is provided in Annex B. It should be noted that the indicators presented above and in the annex are not comprehensive, and readers should refer to the individual guidelines for a more complete listing of all core and additional indicators in this area.

General resources

- Tuberculosis Monitoring and Evaluation unit of Stop TB Department of World Health Organization: building capacity at country level for monitoring, evaluation and evidence-based planning, conducting global surveillance of epidemiological and financial trends in TB control
- Stop TB Partnership Working Groups: Three operational working groups provide a focus for coordinated action and support monitoring and evaluation of country-level activities related to
 - o DOTS expansion, including sub-groups on laboratories and public-private mix
 - o TB/HIV
 - o MDR-TB
- Global Working Group on Indicators—a partnership between the World Health Organization, World Bank, U.S. Centers for Disease Control and Prevention, International Union Against Tuberculosis and Lung Disease (IUATLD), Royal Netherlands Tuberculosis Association (KNCV), U.S. Agency for International Development (USAID) and Measure. Contact: cvincent@usaid.gov

Technical assistance

- International Union Against TB and Lung Diseases (IUATLD): www.iuatld.org
- Royal Netherlands Tuberculosis Association (KNCV): www.tuberculose.nl
- U.S. Centers for Disease Control: www.cdc.gov (mqualls@cdc.gov)
- World Health Organization: www.who.int (dyec@who.int)
- World Bank: www.worldbank.org (dweil@worldbank.org)

Software products

- WHO EpiCentre software to manage quarterly reporting data
Contact: WHO SEARO (Nani Nair, nairn@whosea.org)
- Electronic TB Register (ETR): a computerized TB register capturing individual patient data available from the U.S. Centers for Disease Control's "Botusa" project in Africa
Contact: Peter Vranken (pbv7@botusa.org).

Guidelines

- World Health Organization (2002). An expanded DOTS framework for effective tuberculosis control.
<http://www.who.int/gtb/publications/dots/pdf/TB.2002.297.pdf>
- World Health Organization (1998). Tuberculosis handbook.
<http://www.who.int/gtb/publications/tbhandbook/index.htm>
- World Health Organization (2004). Global Tuberculosis Control: : Surveillance, Planning, Financing. WHO Report 2004. <http://www.who.int/gtb/publications/globrep/index.html>
- World Health Organization (2003). Management of Tuberculosis Training for health facility staff.
http://www.who.int/gtb/publications/training/management_of_tb/pdf/who_cds_tb_2003_314i.pdf
- World Health Organization (1998). Laboratory services in tuberculosis control.
http://www.who.int/gtb/publications/whodoc/who_tb-98-258/en/98.258_org_management-.pdf
- World Health Organization (2001). The Use of Indicators for communicable disease control at district level.
http://www.who.int/gtb/publications/indicators/tb_2001_289.pdf
- World Health Organization (2001). Good practice in legislation and regulations for TB control: An indicator of political will.
http://www.who.int/gtb/publications/General/TB_2001_290legisl.pdf
- World Health Organization (2000). Guidelines for establishing DOTS-PLUS pilot projects for the management of multidrug-resistant tuberculosis (MDR-TB).
<http://www.who.int/gtb/publications/dotsplus/dotspluspilot-2000-279/english/index.htm>
- World Health Organization (1998). Guidelines for conducting a review of a national tuberculosis programme.
http://www.who.int/gtb/publications/whodoc/who_tb_98.240.pdf

TB/HIV

In many settings, tuberculosis is a common co-infection among PLWHA. It is important therefore to monitor and evaluate efforts to treat these two diseases. This section of the toolkit summarizes common indicators used and provides references to existing documents.

Summary table for TB/HIV

	Output	Outcome
Prevention	<ul style="list-style-type: none"> HIV seroprevalence among all TB patients (TB/HIV-PI 1) 	<ul style="list-style-type: none"> Treatment of latent TB infection for PLWHA (number* and percentage**) (TB/HIV-PI 2)
Treatment	<ul style="list-style-type: none"> Intensified TB case finding among PLWHA (TB/HIV-TI 1) Counseling and testing for TB patients (TB/HIV-TI 2) 	<ul style="list-style-type: none"> Provision of CPD preventive therapy for TB patients (TB/HIV-TI 3) Provision of ART for TB patients during TB treatment (TB/HIV-TI 4)
Supportive Environment	<ul style="list-style-type: none"> Sufficient drug and laboratory supplies Capacity building TB/HIV coordinating body at national level and all subnational levels where HIV and TB are both prevalent Joint Planning between HIV and TB services HIV policy that addresses TB TB policy that addresses HIV 	<ul style="list-style-type: none"> Number of health facilities involved in DOTS with sufficient drug and laboratory supplies Number of health facilities and laboratories involved in DOTS with sufficient capacity for DOTS Number of health facilities where TB and HIV services are both available
<p>* Outputs and outcomes here are also measured as "counts" of increased capacity provided against a need that has been estimated as a pre-condition for change and they can be quantified through direct observation or an annotated inventory. For these "counts", the toolkit does not provide a detailed description in the annexes.</p> <p>** Both percentages and numbers ("counts") are required. However, if a denominator cannot be obtained, focus should be on the "count".</p>		

The detailed description of each of the indicators listed above is provided in Annex C. It should be noted that the indicators presented above and in the annex are not comprehensive, and readers should refer to the individual guidelines for a more complete listing of all core and additional indicators in this area.

General resources

- Stop TB Partnership Working Groups: Three operational working groups provide a focus for coordinated action and support monitoring and evaluation of country-level activities related to:
 - DOTS expansion, including sub-groups on laboratories and public-private mix
 - TB/HIV
 - MDR-TB
- Global Working Group on Indicators – a partnership between the World Health Organization, World Bank, U.S. Centers for Disease Control and Prevention, International Union Against Tuberculosis and Lung Disease (IUATLD), Royal Netherlands Tuberculosis Association (KNCV), U.S. Agency for International Development (USAID) and Measure.

Contact: cvincent@usaid.gov

Technical assistance

- International Union Against TB and Lung Diseases (IUATLD): www.iuatld.org
- Royal Netherlands Tuberculosis Association (KNCV): www.tuberculose.nl
- U.S. Centers for Disease Control: www.cdc.gov (mqualls@cdc.gov)
- World Health Organization: www.who.int (dyec@who.int)
- World Bank: www.worldbank.org (dweil@worldbank.org)

Guidelines

- World Health Organization (2003). Guidelines for implementing collaborative TB and HIV programme activities. http://www.who.int/gtb/publications/tb_hiv/2003_319/tbhiv_guidelines.pdf
- World Health Organization (2004). Guide to monitoring and evaluation for collaborative TB/HIV activities (WHO/HTM/TB/2004.342)

Malaria

This section of the toolkit provides a generalized framework for monitoring and evaluation of specific interventions or service delivery areas within malaria control programmes. An overview of the indicators for M & E across interventions is presented and general resources that are available or in preparation. Each of the indicators is applicable to all malaria endemic settings, with the exception of the indicators covering impact and epidemics. The indicator for the prediction of epidemics should only be used for countries with epidemic-prone areas. With regard to monitoring impact, the primary indicator to be monitored by all African countries and high endemic settings is all-cause under-5 mortality, as measured by nationally-representative, household surveys. Malaria-specific mortality cannot be measured routinely, as it is difficult to measure in malaria-endemic Africa. Symptoms and signs (such as anemia) are not specific and sensitive, making autopsy and verbal autopsy inaccurate; and many deaths, especially in young children, may be malaria related rather than attributable to malaria exclusively without concurrent infections. Moreover, a majority of deaths do not occur in hospitals and are not routinely recorded in HMIS, and these are unlikely to be picked up in vital registration systems, which are often incomplete.

Summary table for Malaria

	Service delivery area	Output	Outcome
Prevention	• Insecticide-treated nets (ITNs)	• Number of nets, LLNs, pretreated nets or retreatment kits distributed* • Number of nets retreated* • Number of sentinel sites established for monitoring insecticide resistance*	• Households owning ITN (Malaria-PI1) • Children under 5 using ITN (Malaria-PI 2)
	• Malaria in pregnancy	• Number of nets, LLNs, pretreated nets or re-treatment kits distributed* • Number of nets retreated* • Number of pregnant women receiving correct IPT*	• Pregnant women using ITNs (Malaria-PI 3) • Pregnant women receiving intermittent preventive therapy (IPT) as (Malaria-PI 4)
	• Prediction and containment of epidemics		• Malaria epidemics detected and properly controlled (Malaria-PI 5)
	• Indoor Residual Spraying	• Number of homes and areas sprayed with insecticide*	
	• Behavioural Change Communication (BCC)	• Number of targeted areas with BCC services*	
Treatment	• Prompt, effective antimalarial treatment	• Number of patients with uncomplicated and severe malaria receiving correct diagnosis and treatment* • Health facilities with no reported stockouts of antimalarial drugs (Malaria-TI 2)	• Children under 5 years of age with access to prompt effective treatment (Malaria-TI1) • Patients with severe malaria receiving correct treatment (Malaria-TI 3)
	• Monitoring drug resistance	• Number of patients with uncomplicated and severe malaria receiving correct diagnosis and treatment* • Health facilities with no reported stockouts of antimalarial drugs (Malaria-TI 2)	
	• Home-based management of malaria	• Number of caretakers recognizing signs and symptoms of malaria*	
<p>* Outputs and outcomes here are also measured as “counts” of increased capacity provided against a need that has been estimated as a pre-condition for change and they can be quantified through direct observation or an annotated inventory. For these “counts”, the toolkit does not provide a detailed description in the annexes.</p> <p>** Both percentages and numbers (“counts”) are required. However, if a denominator cannot be obtained, focus should be on the “count”.</p>			

The detailed description of each of the indicators listed above is provided in Annex C. D. It should be noted that the indicators presented above and in the annex are not comprehensive, and readers should refer to the individual guidelines for a more complete listing of all core and additional indicators in this area.

General resources

Since the creation of Roll Back Malaria (RBM), a global Monitoring and Evaluation Reference Group (MERG) has been established to improve coordination among key M&E players. The main function of the MERG is to act as an advisory body for the RBM Secretariat, hence to give technical guidance related to monitoring progress in malaria control. The actual M&E work is being implemented by National Malaria Control Programmes with support from the inter-country teams and RBM partners. General information on the activities and products of the MERG can be found at the following link: http://mosquito.who.int/partnership/wg/wg_monitoring/summary.htm.

Technical assistance and software products

Technical support to governments is available through a variety of sources, most notably through the RBM Monitoring and Evaluation Reference Group (MERG) and WHO headquarter and regional offices, as well as RBM inter-country offices. Further, M&E technical support groups have been established in some countries through the broader RBM partnership.

Guidelines

More information on monitoring and evaluation of malaria control activities can be found in the following documents:

General

- Roll Back Malaria. *Framework for Monitoring Progress and Evaluating Outcomes and Impact*. 2000. Geneva. Available online: http://rbm.who.int/cmc_upload/0/000/012/168/m_e_en.pdf.
- Roll Back Malaria/MEASURE. *Guidelines for core indicators for assessing malaria intervention coverage from household surveys*. 2004. In preparation.
- Roll Back Malaria. Monitoring and Evaluation Reference Group, Mortality Task Force. *Meeting Minutes*. 16 July 2003. Available online: http://mosquito.who.int/partnership/wg/wg_monitoring/summary.htm
- Roll Back Malaria. Malaria Indicator Survey (MIS). *In preparation*.
- WHO/UNICEF. Africa Malaria Report 2003. Available online: http://mosquito.who.int/partnership/wg/wg_monitoring/summary.htm

Policies and guidelines

- WHO. *Management of Severe Malaria: A practical handbook*. 2nd Edition. Geneva 2000. Available online: <http://rbm.who.int/docs/hbsm.pdf>.
- WHO. *The Use of Antimalarial Drugs: Report of an Informal Consultation*, Geneva, 13-17 November 2000. Available online: http://rbm.who.int/cmc_upload/0/000/014/923/use_of_antimalarials.pdf.
- WHO. *Antimalarial Drug Combination Therapy: Report of a WHO Technical Consultation*, Geneva, 4-5 April 2001. Available online: http://www.doh.gov.za/issues/malaria/red_reference/case_management/cm29.pdf
- WHO Regional Office for the Western Pacific. *Malaria Rapid Diagnosis: Making it work*. Meeting Report 20-23 January 2003. Manila. Available online: http://rbm.who.int/cmc_upload/0/000/016/750/rdt2.pdf.

Drug supply management

- Management Sciences for Health. *Drug Management for Malaria*. June 2000, revised July 2002. Rational Pharmaceutical Management Program.
- John Snow International. *Logistics Indicators and Monitoring and Evaluation Tools*. DELIVER Project. Available online: http://deliver.jsi.com/2002/Pubs/Pubs_Guidelines/index.cfm.

Drug resistance

- WHO. *Monitoring Antimalarial Drug Resistance*. 2002. *Report of a WHO consultation*, Geneva, Switzerland 3-5 December 2001. Available online: http://rbm.who.int/cmc_upload/0/000/015/800/200239.pdf.

Home-based management

- Roll Back Malaria/UNDP/World Bank/WHO TDR. *Scaling up home-based management of malaria: from research to implementation*. 2003. Geneva. *In preparation*.

- Carol Baume. *A Guide to Research on Care-seeking for Childhood Malaria*. Published by the Support for Analysis and Research in Africa (SARA) Project and the Basic Support for Institutionalizing Child Survival Project (BASICS II) for the United States Agency for International Development. Arlington, Virginia, April 2002. Available online: <http://www.aed.org/publications/GuideResearch.pdf>.

Vector control including insecticide-treated nets (ITNs)

- Roll Back Malaria. *Scaling-Up Insecticide-Treated Netting Programmes in Africa: A Strategic Framework for Coordinated National Action*. 2002. Geneva. Available online: http://rbm.who.int/cmc_upload/0/000/015/845/itn_programmes.pdf.
- Roll Back Malaria. *Insecticide-Treated Mosquito Net Interventions: A Manual for National Control Programme Managers*. 2003. Available online: http://rbm.who.int/cmc_upload/0/000/016/211/ITNinterventions_en.pdf.
- WHO. *Space spray application of insecticides for vector and public health pest control: A practitioner's guide*. Geneva, 2003 (document WHO/CDS/WHOPES/GCDPP/2003.5). Available online: http://www.who.int/ctd/whopes/docs/Brochure_Space.pdf.

Malaria in pregnancy

- Roll Back Malaria. *Strategic framework for malaria control during pregnancy*. 1 November 2002.

Malaria epidemics

- Hook C. Field Guide for Malaria Epidemic Assessment and Reporting. DRAFT for Field Testing. World Health Organization. 2003. Available online: http://rbm.who.int/cmc_upload/0/000/016/569/FTest.pdf.
- Roll Back Malaria. Prevention and Control of Malaria Epidemics: 3rd Meeting of the TSN, Geneva, 10-11 December 2001. 2002. Available online: http://rbm.who.int/cmc_upload/0/000/015/827/3epidemics_report.pdf.
- Roll Back Malaria. Malaria Early Warning Systems: A Framework for Field Research in Africa . Available online: http://rbm.who.int/cmc_upload/0/000/014/807/mews2.pdf.

Training and human resources development

- Roll Back Malaria. RBM Human Resource Needs Assessment & Planning Tool. 2003. In preparation.